

way of a control panel 22. The trolley 11 also has an end section 23 which contains a refrigerating unit and fan to provide for air to be cooled and circulated over a region of each tray where food is to be maintained cool. The trolley 11 can be plugged into a power supply by way of lead 24 to enable the heating and cooling systems to be operated.

The method of operation of the food dispensing system will now be considered with particular reference to FIG. 3.

Sub off E1

Supply location 30 represents a food preparation area for supplying a number of consumer sites 31, 32, 33 which are in this case hospitals which are some distance from each other and from supply location 30. The supply location receives raw materials and supplies by path W. At the supply location 30 food is prepared, cooled and plated and individual amounts for an individual consumer at one of the consumer sites are placed on a tray. Trays for delivery to a particular consumer location 31 are placed on one or more racks as described in relation to FIG. 1. The racked arrays are then loaded into a refrigerated transfer vehicle whereby the food is transferred to location 31. The vehicle is equipped with a load space incorporating suitable cooling means to ensure that trays of food in each rack does not exceed predetermined limits.

The transfer vehicle then delivers along path S the racked arrays bearing the food to consumer site 31. At an intermediate location at the site each racked array is unloaded from the vehicle and loaded into a regeneration trolley of the type described in connection with FIG. 1. The loaded trolley is then moved closer to the location of the eventual consumers of the contents of the trolley. The trolley is connected to a power supply and is then powered up to enable the food content of the racked array to be automatically regenerated according to a predetermined program held in the control unit of the trolley. Once regeneration has been completed the trolley is opened and the trays and their contents distributed to the recipients.

Once consumption of the food has been completed the trays are returned to the racks in the trolley. The trolley is then transferred to the intermediate location at the consumer site where the racks loaded with the now used trays are transferred from the trolley into a vehicle which returns the used trays and utensils to the supply location 30 for cleaning and re-loading.

If necessary a vehicle can deliver racks bearing food for consumption over a period of time. In such a case given that sufficient regeneration trolleys are available then the trolleys can all be loaded and programmed to ensure that regeneration occurs at appropriate times. Alternatively if sufficient trolleys are not available then the loaded racks can be kept in some form of chilled storage.

Satellite sites 32, 33 are supplied in a similar way to that described for site 31.

It will be apparent that the method of the embodiment enables equipment to be utilised efficiently and to reduce the need for expensive regeneration trolleys to be transported outside the site where they are used. Each site thus retains control of its own regeneration trolleys. The only items

needing to be transported between supply site 30 and the consumer sites 31, 32, 33 are the racks bearing the trays and two or three racks are substantially cheaper than a regeneration trolley. A single regeneration trolley can be used for a given location, say a word, to provide meals for, say three, eating periods in a day. The trolley is initially charged with racks bearing loaded trays and a regeneration cycle completed prior to food being distributed for the first meal. This cycle can readily be repeated for two further meal periods since all that is required is the removal of racks with emptied trays, cleaning and recharging with a fresh set of racks with food bearing trays. Cleaning is readily undertaken since the interior of a trolley utilising the racks of the present invention contain little apart from the wall, and top and bottom surfaces.

A supply site 30, possibly many miles from one or more consumer sites, can be equipped, staffed and operated to take advantage of economies of scale and so supply consumer sites more efficiently than would be possible where each consumer site has its own food preparation and distribution system. In addition the transportation of more racks than regeneration trolleys can be undertaken in a given vehicle. At the supply site the cleaning and storage of racks and the loading of racks with charged trays involves smaller storage and handling areas at the supply site than would be possible where charged trays have to be loaded into regeneration trolleys recovered from the or each consumer site.

What is claimed is:

1. A method of preparing, transporting and dispensing food between a series of remote locations, the method comprising the steps of:

preparing the food for consumption at the first location; apportioning the food onto a plurality of trays at the first location;

stacking the trays in a manually maneuverable rack, and providing the rack with a predetermined stacking arrangement of particular dimensions;

loading the maneuverable rack onto a refrigerated vehicle for transportation to a second remote location;

transferring the maneuverable rack, at the second location, into a moveable receptacle comprising at least one of heating and cooling means, and the receptacle being configured to receive at least one of the plurality of racks;

relocating the moveable receptacle to a desired position; activating at least one of the heating and cooling means prior to dispensing of the food trays to consumers; dispensing the food trays to the consumers for consumption;

collecting and re-stacking the trays in the rack situated within the receptacle;

removing the at least one maneuverable rack from the moveable receptacle for transportation of the rack back to the first location.

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